

REMARKS

With the entry of this Amendment, Claims 1, 2, 4-6, 19 and 20 are pending in the present application. Claims 1, 4, 19 and 20 are amended without adding new matter.

I. REQUIREMENT FOR INFORMATION

The applicants submit that they are aware of the prior art references, copies of which are provided with the attached Information Disclosure Statement

The applicants submit that the work they are aware of by others with respect to measuring ringing artifacts are the publications listed in the Information Disclosure Statement, copies of which are provided.

The applicants submit that the corresponding foreign filed applications are Japanese application No. JP 04555778 and European application No. EP 03796476.4. The JP 04555778 application has been abandoned and the for the EP 03796476.4, no office action has yet been issued.

II. REQUIREMENT FOR DRAWINGS

New formal drawings are required. Thus, six (6) sheets of formal drawings are submitted with this amendment. No new matter has been added to the formal drawings.

III. REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

A. The Examiner has rejected claims 1-6 and 19-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Number 7,038,710 issued to Caviedes (hereinafter “Caviedes”). Applicants respectfully traverse this rejection.

Caviedes fails to teach the step of generating the ringing artifact comprising segmenting the processed image into at least one uniform region and at least one non-uniform region as recited in amended independent claims 1, 19 and 20. In fact, Caviedes teaches away from this by stating that “Unlike the blocking, which depends on the presence of uniform or smooth regions, ringing depends on the amount of edges in the image.” See column 5, lines 29-32 of Caviedes. In Caviedes, ringing is detected as the count of single pixels with high values, i.e. those pixels which are near strong edges or in unnaturally smooth regions. The “low activity regions” in column 5, line 47 of Caviedes is alleged by the Examiner as the uniform region. However, the “low activity region” of Caviedes is defined as regions adjacent to the strong edges where the variance is low. However, the uniform region in the present invention includes a whole area and is not restricted only to region adjacent to the edges. Thus, the artifact measuring in Caviedes does not teach or suggest segmenting the image into uniform and non-uniform regions.

Since Caviedes is devoid of any teachings regarding segmenting the processed image into at least one uniform region and at least one non-uniform region, Applicants believe amended independent claims 1, 19, and 20 are patentable under 35 U.S.C. § 102 (e). Claims 2, 4, and 5 depend, either directly or indirectly, from claim 1 and are patentable at least for the same reasons that the independent claim 1 is patentable. As such, the Applicants respectfully request the rejection of claims 1, 2, 4, 5, 19 and 20 be withdrawn.

B. The Examiner has rejected claims 1-3 and 19-20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Number 6,285,797 issued to Lubin et al. (hereinafter “Lubin”). Applicants respectfully traverse this rejection.

Lubin also fails to teach the step of generating the ringing artifact comprising segmenting the processed image into at least one uniform region and at least one non-uniform region as recited in amended independent claims 1, 19 and 20. Thus, applicants believe that amended claims 1, 19 and 20 and dependent claim 2 are patentable under 35 U.S.C. § 102(b). As such, the Applicants respectfully request the rejection of claims 1, 2, 19 and 20 be withdrawn

IV. REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

The Examiner has rejected claim 6 and 15 as being unpatentable over Caviedes in view of U.S. Patent Number 6,845,180 to Matthews (hereinafter “Matthews”).

Neither of the references, Caviedes in view of Matthews alone or in combination teach or suggest the step of segmenting the processed image into at least one uniform region and at least one non-uniform region as recited in amended independent claim 1. Since, the amended independent claim 1 is patentable over the prior art, as discussed above, Applicant submits that the dependent claim 6 is allowable for the same reasons as advanced allowability of claim 1. Applicant respectfully requests withdrawal of the §103 rejection of Claim 6.

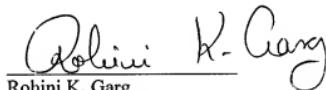
CONCLUSION

In view of the above amendment and remarks, Claims 1, 2, 4-6, 19 and 20 are submitted to be allowable. Reconsideration and favorable action in this regard are therefore earnestly solicited.

No fee is believed to be required with the entry of this amendment. However, if any additional fee is deemed necessary for this Amendment to be entered and considered by the Examiner, then the Commissioner is authorized to charge such fee to Deposit Account No. 501358.

Applicants' undersigned agent may be reached at the telephone number provided below. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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